

REMARKS

The present application has been reviewed in light of the Office Action dated April 1, 2008. Claims 1-14, 16, 17, 19-32, 34, 35, and 37-44 are presented for examination, of which Claims 1 and 19 are in independent form. Claims 15, 18, 33, and 36 have been cancelled, without prejudice or disclaimer of the subject matter presented therein, and new Claims 41-44 have been added to provide Applicants with a more complete scope of protection. Claims 1-10, 12-14, 16, 17, 19-32, 34, 35, and 37-40 have been amended to define aspects of Applicants' invention more clearly. Favorable reconsideration is requested.

The Office Action states that Claims 1-14, 18-32, and 36-40 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,026,474 (Carter et al.); and that Claims 15-17 and 33-35 are rejected under § 103(a) as being unpatentable over Carter et al. in view of U.S. Patent No. 5,953,506 (Kalra et al.). Cancellation of Claims 15, 18, 33, and 36 renders their rejections moot. Applicants submit that independent Claims 1 and 19, together with the claims dependent therefrom, are patentably distinct from the cited references for at least the following reasons.

Claim 1 is directed to a method of processing a digital signal identified by a unique identifier in a distributed communication network composed of several communication apparatuses. The method includes storing at least a part of data constituting the identified digital signal in a local storage located in one of the communication apparatuses; and managing two descriptors related to the unique identifier within the local storage. The two descriptors include a first descriptor, which provides a

description representing a structure and an organization of the data constituting the identified digital signal, and a second descriptor, which is dependent on the first descriptor and representative of the part of the data stored in the local storage. The data constituting the identified digital signal is in a multiresolution format, and the second descriptor has a hierarchical structure related to the multiresolution format.

A notable feature of Claim 1 is the use of the two descriptors, the first of which provides a description representing a structure and an organization of the data constituting the identified digital signal, and the second of which is dependent on the first descriptor and representative of the part of the data stored in the local storage. By virtue of the management of these two descriptors, it is possible to more easily and more rapidly access information about the local presence or absence of data at a communication apparatus. (See, for example, the specification at page 3, line 30, to page 4, line 7.)

Another notable feature of Claim 1 is that the data constituting the identified digital signal is in a multiresolution format, and the second descriptor has a hierarchical structure related to the multiresolution format. A benefit of such a feature is that the hierarchical nature of the second descriptor makes it possible to rapidly identify macro-entities of data present at a communication apparatus, without needing to go through the whole descriptor to obtain this information. For example, the hierarchical nature of the second descriptor makes it possible to quickly detect whether all the data for a particular

resolution level has been received.¹ (See, for example, the specification at page 7, 1lines 8-11; page 23 1lines 6-7, and page 37 1lines 18-20.)

Carter et al. is understood to relate to a shared file system in which a Web browser application stores cached data in shared files in a globally addressable data store. In the Office Action, it is alleged that Carter et al. discloses the first descriptor of Claim 1 as a stream descriptor, shown in Fig. 3 and discussed at column 7, lines 27-29, and the Office Action further alleges that the second descriptor of Claim 1 is disclosed in Carter et al. as a “file Inode” and is discussed at column 9, lines 31-35.

Applicants submit, however, that the file Inode, as disclosed in Carter et al., does not have a hierarchical structure. The Office Action, on page 9, points to Figs. 3 and 4 of Carter et al. for allegedly showing that the second descriptor has a hierarchical structure. Applicants respectfully disagree. Figs. 3 and 4 merely show, apparently, that each file in a data stream has a file Inode, but does not at all show that the file Inode has a hierarchical structure. According to Applicants’ understanding, the file Inode or descriptor 110 is described in Carter et al. to include various file attributes 112 and contains an address that points to a data stream descriptor 114 corresponding to a data stream. The data stream itself is described to include one or more addresses 116, 118, 120, 122, and 124 that point to particular pages in a virtual addressable shared memory space 20. (See, for example, the discussion of Figs. 3 and 4 in Carter et al.) Clearly, the representation of the data stream is fragmented and does not have a hierarchical structure.

¹Examples presented herein are provided purely for illustrative purposes and are not to be construed to limit the scope of the claims.

Further, it is respectfully submitted that the file Inode of Carter et al. does not relate to a multiresolution format of a digital signal. (This is discussed further below.)

Nothing has been found in Carter et al. that is believed to teach or suggest a method of processing a digital signal identified by a unique identifier, in which the method includes “managing two descriptors related to the unique identifier within the local storage, the two descriptors including a first descriptor, which provides a description representing a structure and an organization of the data constituting the identified digital signal, and a second descriptor, which is dependent on the first descriptor and representative of the part of the data stored in the local storage,” and wherein “the data constituting the identified digital signal is in a multiresolution format and wherein the second descriptor has a hierarchical structure related to the multiresolution format,” as recited in Claim 1. Accordingly, Applicants submit that Claim 1 is not anticipated by Carter et al. and therefore respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b).

Independent Claim 19 includes feature similar to those of Claim 1 and therefore is believed to be patentable for at least the reasons discussed above. Additionally, the other claims in the present application depend from Claim 1 or Claim 19 and therefore are submitted to be patentable for at least the same reasons. Because each dependent claim also is deemed to define an additional aspect of the invention, individual consideration or reconsideration, as the case may be, of the patentability of each claim on its own merits is respectfully requested.

Support for new Claims 41-44 may be found, for example, at pages 21 and 27 of the specification.

Kalra et al. relates to a system that provides for scalable media delivery. The Office Action concedes that Carter et al. fails to disclose a digital signal in a multiresolution format, and alleges that Kalra et al. remedies this deficiency of Carter et al. It is respectfully submitted, however, that even if Kalra et al. discloses the use of a digital signal in a multiresolution format (and Applicants do not concede that this is the case), one of ordinary skill in the art would not look to modify the file Inode of Carter et al. to have a hierarchical structure related to a multiresolution format of a digital signal merely because Kalra et al. may use such a signal. Not only is there a lack of motivation to make such a modification, Applicants respectfully submit that such a modification would require a significant redesigning of the Carter et al. system.

It is respectfully submitted that, without the teachings of the present application, one of ordinary skill in the art would not be cognizant of the benefits of providing and managing the two descriptors of Claim 1 and therefore would not look to modify Carter et al. to incorporate the two descriptors of Claim 1. In other words, Applicants believe that only after becoming aware of Applicants' claimed invention would a person of ordinary skill in the art look to modify Carter et al. to incorporate the two descriptors of Claim 1, and such a use of hindsight would be impermissible and cannot be the basis of a proper obviousness rejection.

Nothing has been found in Kalra et al. that is believed to teach or suggest a method of processing a digital signal identified by a unique identifier, in which the method includes "managing two descriptors related to the unique identifier within the local storage, the two descriptors including a first descriptor, which provides a description representing a

structure and an organization of the data constituting the identified digital signal, and a second descriptor, which is dependent on the first descriptor and representative of the part of the data stored in the local storage,” and wherein “the data constituting the identified digital signal is in a multiresolution format and wherein the second descriptor has a hierarchical structure related to the multiresolution format,” as recited in Claim 1.

Accordingly, Applicants submit that Claims 1 and 19, as well as the claims depending therefrom, are patentable over Carter et al. and Kalra et al., considered individually or in any permissible combination.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and an early passage to issue of the present application.

No petition to extend the time for response to the Office Action is deemed necessary for this Amendment. If, however, such a petition is required to make this Amendment timely filed, then this paper should be considered such a petition and the Commissioner is authorized to charge the requisite petition fee to Deposit Account 06-1205.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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